

ABSTRACT OF THE DISCLOSURE

Provided is a III-V compound semiconductor having a layer formed from a first III-V compound semiconductor expressed by the general formula $\text{In}_u\text{Ga}_v\text{Al}_w\text{N}$ (where $0 \leq u \leq 1$, $0 \leq v \leq 1$, $0 \leq w \leq 1$, $u + v + w = 1$), a pattern formed on the layer from a material different not only from the first III-V compound semiconductor but also from a second III-V compound semiconductor hereinafter described, and a layer formed on the first III-V compound semiconductor and the pattern from the second III-V compound semiconductor expressed by the general formula $\text{In}_x\text{Ga}_y\text{Al}_z\text{N}$ (where $0 \leq x \leq 1$, $0 \leq y \leq 1$, $0 \leq z \leq 1$, $x + y + z = 1$), wherein the full width at half maximum of the (0004) reflection X-ray rocking curve of the second III-V compound semiconductor is 700 seconds or less regardless of the direction of X-ray incidence. In the III-V compound semiconductor, which is a high quality semiconductor, the occurrence of low angle grain boundaries is suppressed.